Application No.: 09/735,495
Old Attorney Docket No. 040071-229
New Attorney Docket No. 0119-154
Page 2

Amendments to the Claims:

Please replace all prior versions, and listings of claims in the application with the following listing of claims.

Listing of claims

Claim 1 (original): A method of reducing the memory consumption of a retransmission scheme, the method comprising:

transmitting information to a receiver in the form of data blocks using packet-based transmission;

decoding the received data blocks;

compressing failed data blocks, wherein a failed data block is a data block that fails the decoding process;

storing the compressed failed data blocks;

decompressing the failed data blocks;

combining a decompressed failed data block with an associated retransmitted data block; and

decoding the combined data block.

Claim 2 (original): The method according to claim 1, wherein compressing failed data blocks comprises:

calculating a scale factor that represents soft values within the failed data block; and storing the scale factor and a sign of each soft value within the failed data block in memory.

Claim 3 (original): The method according to claim 2, wherein said scale factor is an average of absolute values of the soft values in the failed data block.

Claim 4 (original): The method according to claim 2, wherein decompressing the failed data block comprises: multiplying the scale factor by the stored soft value signs.

Application No.: 09/735,495
Old Attorney Docket No. 040071-229
New Attorney Docket No. 0119-154

Claim 5 (original): The method according to claim 2, wherein said soft values are logarithmically scaled values.

Claim 6 (original): The method according to claim 5, wherein combining a decompressed failed data block with an associated retransmitted data block comprises:

adding the values of the retransmitted data block and the decompressed values of the failed data block.

Claim 7 (original): The method according to claim 2, further comprising:

dividing the data blocks into a plurality of sub-blocks, wherein each sub-block is characterized by a substantially constant signal-to-interference and noise-ratio;

calculating a plurality of scale factors, wherein each scale factor represents soft values within a corresponding sub-block; and

storing the plurality of scale factors and a sign of each soft value within the failed data block in memory.

Claim 8 (original): A receiver for receiving packet based data transmissions, the receiver comprising:

a soft output detector;

a decoder;

local memory;

logic that compresses failed data blocks and stores the compressed data blocks in said local memory;

logic that decompresses a compressed data block stored in said local memory; and logic that combines said decompressed data block with an associated retransmitted data block.

Claim 9 (original): The receiver according to claim 8, further comprising:

logic that calculates a scale factor that represents soft values within the failed data block; and

logic that stores the scale factor and a sign of each soft value within the failed data block in memory.

Application No.: 09/735,495
Old Attorney Docket No. 040071-229
New Attorney Docket No. 0119-154

Claim 10 (original): The receiver according to claim 9, wherein said scale factor is an average of the absolute values of the soft values in the failed data block.

Claim 11 (original): The receiver according to claim 9, further comprising: logic that multiplies the scale factor by the stored soft value signs.

Claim 12 (original): The receiver according to claim 9, wherein said soft values are logarithmically scaled values.

Claim 13 (original): The receiver according to claim 12, wherein the logic that combines the decompressed failed data block with the associated retransmitted data block comprises:

logic that adds the values of the retransmitted data block and the decompressed values of the failed data block.

Claim 14 (original): The receiver according to claim 8, further comprising:

logic that divides the data block into a plurality of sub-blocks, wherein each sub-block contains a constant SINR;

logic that calculates a plurality of scale factors, wherein each scale factor represents soft values within a corresponding sub-block; and

logic that stores the plurality of scale factors and a sign of each soft value within the failed data block in memory.

Claim 15 (currently amended): A method of compressing data blocks within a receiver of a communications system, comprising:

receiving data blocks in the receiver;

calculating a scale factor that represents soft values within the received data block; and

storing the scale factor and a sign representation of each soft value within the data block in memory, the representation indicating only a sign of each soft value within the received data block.

Application No.: 09/735,495 Old Attorney Docket No. <u>040071-229</u> New Attorney Docket No. <u>0119-154</u>

Page 5

Claim 16 (original): The method according to claim 15, wherein said soft values are logarithmically scaled values.

Claim 17 (currently amended): The method according to claim 15, further comprising:

A method of compressing data blocks within a receiver of a communications system,

comprising:

receiving data blocks in the receiver:

calculating a scale factor that represents soft values within the received data block;

and

storing the scale factor and a sign of each soft value within the data block in memory; dividing the data blocks into a plurality of sub-blocks, wherein each sub-block is characterized by a substantially constant signal-to-interference and noise-ratio;

calculating a plurality of scale factors, wherein each scale factor represents soft values within a corresponding sub-block; and

storing the plurality of scale factors and a sign of each soft value within the failed data block in memory.